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**IN THE CLAIMS:**

Claims 2-28 are presented herein. Please amend the claims as shown in the following claim listing.

**CLAIM LISTING:**

1. (Cancelled).
2. (Currently Amended) The method of Claim 28 4 wherein the peak melting point of the one or more potting resins is at least 5° below that of the hollow fiber membranes.
3. (Currently Amended) The method of Claim 28 4 wherein the peak melting point of the one or more potting resins is at least 10° below the peak melting point of the hollow fiber membranes.
4. (Currently Amended) The method of Claim 28 4 wherein the one or more thermoplastic, perfluorinated resins of the hollow fiber membranes and the potting resins are selected from the group consisting of homopolymers, copolymers, blends of one or more homopolymers, blends of one or more copolymers and blends of one or more homopolymers and copolymers of perfluorinated resins.
5. (Currently Amended) The method of Claim 28 4 wherein the one or more thermoplastic, perfluorinated resins of the hollow fiber membranes and the potting resins are selected from the group consisting of poly(TFE-co-PFAVE) resins and blends thereof.

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6. (Currently Amended) The method of Claim 28 4 wherein the bundle is heated to a temperature at or above the peak melting point of the one or more potting resins.

7. (Currently Amended) The method of Claim 28 4 wherein the plurality of hollow fiber membranes is formed prior to contacting said membranes with said potting resins by forming said membranes together in a contiguous relation.

8. (Currently Amended) The method of Claim 28 4 wherein the array is formed prior to contacting said membranes with said potting resins by forming said membranes together in a spaced apart relation.

9. (Currently Amended) The method of Claim 28 4 wherein the potting resin is a thin stream deposited in a defined zone near one end of said membrane array.

10. (Currently Amended) The method of Claim 28 4 further comprising the step of contacting a second thin stream of potting resin near an opposite end of said array of membranes.

11. (Currently Amended) The method of Claim 28 4 further comprising the step of forming a substantially parallel array of said membranes and subsequently spirally winding said array about an axis which is substantially parallel to a longitudinal axis of said membrane array while simultaneous applying said potting resin to the array of membranes to form circular bundle of fibers having at least one potted end.

12. (Currently Amended) The method of Claim 28 4 further comprising the step of continuing to apply said potting resin after said circular bundle is formed to create

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a tubesheet of predetermined diameter about at least one end of said hollow fiber membranes.

13. (Currently Amended) The method of Claim 28 further comprising the step of cutting the at least one potted end of the bundle orthogonally to the longitudinal axis of said hollow fiber membranes to form said bundle with at least one flat end surface having exposed lumens.

14. (Original) The method of Claim 13 further comprising the step of mounting said bundle into a cartridge housing.

15. (Original) The method of Claim 14 wherein the bundle is mounted in said housing by fusion bonding.

16. (Previously Presented) A method of making a hollow fiber membrane cartridge consisting of all thermoplastic perfluorinated resin or polytetrafluoroethylene comprising:

a. forming a plurality of hollow fiber membranes formed of one or more thermoplastic perfluorinated resins into a substantially parallel arrangement wherein the fibers are arranged in parallel arrangement along a length of the fibers; then

b. winding the plurality of hollow fibers about an axis which is substantially parallel to the length of the hollow fiber membranes so as to form a bundle having two bundle ends;

c. simultaneously with step (b), extruding a molten stream of a perfluorinated thermoplastic resin having a peak melting point at least 5°C below the peak melting point of the hollow fiber membranes and having a melt flow index of 100g/10 min. or greater and directing said resin onto at least one of the two bundle ends to thereby pot one or more ends in said resin;

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- d. cooling the bundle;
- e. heating the bundle at the one or more potted ends to a temperature at or above the peak melting point of the resin of the stream but below the peak melting point of the hollow fibers to eliminate voids in said potted ends; and
- f. exposing the lumen ends of the hollow fiber membranes at one or more potted bundle ends to communicate with the exterior of the bundle.

17. (Original) The method of Claim 16 wherein both ends of the bundle are potted with the molten stream of the perfluorinated thermoplastic resin.

18. (Original) The method of Claim 16 wherein both ends of the bundle are potted with the molten stream of the perfluorinated thermoplastic resin and wherein both ends of the bundle are exposed so that the lumen ends of the hollow fiber membranes can communicate with the exterior of the bundle.

19. (Currently Amended) A hollow fiber membrane cartridge including a bundle of potted hollow fiber membranes, made by the method of Claim 28 4,  
wherein the potting materials and the hollow fiber membranes are made from different thermoplastic, perfluorinated resins, and the potting materials melt at a temperature below the melting point of the hollow fiber membranes.

20. (Original) A hollow fiber membrane cartridge including a bundle of potted hollow fiber membranes, made by the method of Claim 16,  
wherein the potting materials and the hollow fiber membranes are made from different thermoplastic, perfluorinated resins, and the potting materials melt at a temperature below the melting point of the hollow fiber membranes.

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21. (Original) The method of Claim 16 further comprising the steps of:

g. inserting the bundle into a housing for the bundle having a first and second end and a cylindrical housing interior being suitably shaped to contain the membrane bundle, a first means for sealing the first end of the bundle to the interior of the housing adjacent its first end, a second means for sealing the second end of the bundle to the interior of the housing adjacent its second end, the housing having one or more means for dividing the bundle into at least two regions including a shell side space exterior to the portion of the bundle between the potted ends and a space including the lumens; then

h. applying a first end cap adjacent the first end of the housing to seal the first housing end; then

i. applying a second end cap adjacent the second housing end so as to seal the second housing end; and

j. providing a shell side access in the housing and at least one access in at least one of the first or second end caps.

22. (Original) A hollow fiber membrane cartridge including a bundle of potted hollow fiber membranes made by the method of Claim 21,

wherein the potting materials and the hollow fiber membranes are made from different thermoplastic, perfluorinated resins, and the potting materials melt at a temperature below the melting point of the hollow fiber membranes.

23. (Original) A method according to Claim 16 wherein the potting compound has melt flow index of from about 100 to about 200g/10 mins.

24. (Previously Presented) A method of forming a hollow fiber module consisting of all thermoplastic, perfluorinated resin comprising the steps of:

forming a substantially parallel array of hollow fiber membranes, wherein said membranes are formed of one or more thermoplastic perfluorinated resins,

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forming one or more strips of potting material formed one or more thermoplastic perfluorinated resins along one or more portions of the array, wherein the potting material has a peak melting point at least 5°C below that of the hollow fiber membranes,

winding the array upon itself in order to form a bundle,

heating said bundle to a temperature below the peak melting point of the hollow fibers and above the peak melting point of the one or more strips of potting material for a period sufficient to form a fluid-type seal free of voids between the potting material and the hollow fiber membranes.

25. (Original) The method of Claim 24 wherein the one or more thermoplastic perfluorinated resins of the hollow fiber membranes and the potting material are selected from the group consisting of poly(tetrafluoroethylene-coperfluoro(alkylvinylether)), oly(tetrafluoroethylene-co-hexafluoropropylene) and blends thereof.

26. (Original) The method of Claim 24 wherein the one or more strips of potting material is applied to the array of fibers as a molten stream.

27. (Original) The method of Claim 24 wherein the one or more strips of potting material is applied to the array of fibers as a solid, preformed tape.

28. (New) A method of forming a hollow fiber bundle consisting of all thermoplastic, perfluorinated resin materials comprising the steps of:

(a) heating one or more thermoplastic, perfluorinated potting resins to a temperature sufficiently above their peak melting point but at or below the peak melting point of the thermoplastic, perfluorinated resin hollow fiber membranes to which the potting resins will be applied for the formation of a hollow fiber bundle;

(b) applying the one or more melted potting resins to at least one end of an array consisting of a plurality of parallel thermoplastic, perfluorinated resin hollow fiber

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membranes at a contact temperature which causes the melted potting resins to flow around the hollow fiber membranes, thereby forming a bundle consisting of a potted array of substantially parallel hollow fiber membranes;

- (c) cooling the bundle; and
- (d) heating the cooled bundle to a temperature below the peak melting point of the hollow fibers but above the peak melting point of the one or more potting resins for a period sufficient to form a fluid-tight seal free of voids between the one or more potting resins and the hollow fiber membranes.

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